

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number
WO 2005/052119 A2

(51) International Patent Classification⁷: C12N
(21) International Application Number:
PCT/US2004/038865

(22) International Filing Date:
19 November 2004 (19.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/523,380 19 November 2003 (19.11.2003) US

(71) Applicant (for all designated States except US): **BETH ISRAEL DEACONESS MEDICAL CENTER** [US/US];
330 Brookline Avenue, Boston, MA 02215 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BAROUCH, Dan, H.** [US/US]; 1 Longfellow Place, #3222, Boston, MA 02114 (US). **SUMIDA, Shawn, M.** [US/US]; 7122 Kamilo Street, Honolulu, HI 96825 (US). **LETVIN, Norman, L.** [US/US]; 36 Brackett Road, Newton, MA 02158 (US).

(74) Agent: **BIEKER-BRADY, Kristina, P., C.**; Clark & Elbing LLP, 101 Federal Street, Boston, MA 02110 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ADJUVANTS OF IMMUNE RESPONSE

(57) Abstract: The present invention features methods to substantially increase the immunogenicity of a vaccine, preferably a DNA vaccine, and involves providing a mammal with a vaccine regimen, which includes an immunogen and Flt3L in combination with MIP-1 α or MIP-3 α . The methods of the present invention can be used for the prevention and treatment of various pathological states, including for example, cancer, microbial infections, autoimmune diseases, tissue rejection, and allergic reactions.

WO 2005/052119 A2